

REMARKS

Summary Of The Office Action & Formalities

Claims 3-21 are all the claims pending in the application.

The prior art rejections are summarized as follows:

1. Claims 3-14 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Keys (US 6,456,773) in view of Akasaka et al. (US 5,673,354).
2. Claims 15-21 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Keys (US 6,456,773).

Applicant respectfully traverses.

Claim Rejections - 35 U.S.C. § 103

- 1. Claims 3-14 Over Keys (USP 6,456,773) In View Of Akasaka et al. (USP 5,673,354).*

Regarding claims 3-14, the Examiner essentially reiterates the basis for rejecting these claims as set forth in the previous Office Action of April 11, 2005. In addition, the Examiner responds to Applicant's arguments of August 11, 2005 as follows:

Applicant's arguments filed 11 August 2005 have been fully considered but they are not persuasive.

Applicant [argues] Keys is silent with respect to modules having submodules to provide chromatic dispersion in an optical fiber line over multiple bands. However, the Examiner disagrees. Applicant states that Keys addresses the use of optical fiber with different lengths. Keys further states that the amount of chromatic dispersion that is compensated depends on the length of the optical fiber. Keys further discloses a variety of different lengths of optical fibers can be placed in the different spools of the submodules. Therefore, Keys does disclose the submodules to provide chromatic dispersions operating over different bands, depending on the length of the optical fibers.

Applicant also argues Keys does not address the device to be easily modified to operate in different bands. However, Keys discloses a variety of optical fibers to be used. Keys further does not limit the type of fibers. Furthermore, it is desirable for the submodules to be able to be upgraded or exchanged in order to reduce cost. Keys does disclose the different submodules and spools that can be removed and exchanged from the module in order to obtain the desired chromatic dispersion.

Office Action at pages 4-5. Applicant respectfully disagrees.

As a whole, the grounds of rejection make general statements regarding alleged teachings by Keys, but fail to point to any specific disclosure that would reasonably support such allegations.

For example, with respect to claim 3, the grounds of rejection do not point to any particular disclosure that teaches or suggests the requirement of having compensation optical fibers of “*different kinds*” as stated in the claim. In fact, Keys not only fails to disclose this feature, but even teaches away from it. As explained in Applicant’s last response, Keys is concerned with the problem of building an original optical network operating in a certain band, in which varying lengths of dispersion compensated fiber are required to offset chromatic dispersion in *varying lengths* of the transmission optical fiber throughout the network. Therefore, Keys teaches the use of the *same* kind of optical fiber with varying lengths—not *different* kinds of optical fibers (*i.e.*, having different compensation ratios) as recited in present claim 3 and discussed in Applicant’s specification (*see, e.g.*, the discussion at page 8 and the discussion in connection with Fig. 3). Moreover, this distinction is not trivial, as reflected by the fact that Keys is concerned with only the problem of varying lengths of DCF in an original

optical network, while Applicant's invention addresses the problem of upgrading an optical transmission line with multiple bands.

Regarding claim 6, the grounds of rejection do not even address the limitation that each connection comprises at least one weld.

Regarding claim 13, the grounds of rejection fail to account for the *method steps* recited in the claim, which are neither inherently present nor suggested by the optical network of Keys. For example, as noted above, Keys is concerned with the layout of an original network and is entirely silent about upgrading a network to operate in different or additional spectral bands. Accordingly, Keys fails to disclose replacing one submodule with another "whose compensation optical fiber is of a *different kind*" to that of the other submodule.

Applicant notes the Examiner's statement at page 5 that "it is desirable for submodules to be able to be upgraded or exchanged in order to reduce cost." However, first, this statement finds no support in the cited art. Second, a general desirability to upgrade a network would not, by itself, suggest Applicant's invention. Indeed, with respect to Keys, in particular, this patent would *teach away* from Applicant's invention given its explicit disclosure of using the same kind of compensation fibers. Therefore, the current grounds of rejection appear to rely on Applicant's disclosure to make the obviousness allegation, rather than relying on the prior art alone.

Also, regarding the Examiner's statement that "Keys discloses a variety of optical fibers," as explained above, Keys merely discloses varying the lengths of the same kind of fiber and not the use of different kinds of fibers within a module.

Regarding claim 21, the grounds of rejection fail to even address the limitation recited that each compensation fiber has a negative chromatic dispersion, coupled with the limitations of claim 1 from which claim 21 depends.

In view of the foregoing differences, the Examiner is kindly requested to reconsider and withdraw the rejection of claims 1-14 and 21.

2. Claims 15-21 Over Keys (US 6,456,773).

In rejecting claims 15-21 over Keys (US 6,456,773), the grounds of rejection state:

Keys discloses a main fiber line (425), a compensation module with at least two submodules connected in series, each with a dispersion compensation fiber, transmitting information over the main fiber line, and the ability to replace the second module with a third module, where the second and third submodules are removable from the module and exchangeable with each other. But Keys fails to specifically disclose the dispersion compensation fibers to be compensating for chromatic dispersion.

However, Keys does disclose that depending on the length of the dispersion compensated fiber; the amount of chromatic dispersion is affected. Since Applicant discloses a first length, a second length and a third length and Keys discloses many different lengths or spans can be used, the dispersion compensated fibers do compensate chromatic dispersion.

Keys further fails to specifically disclose one or more connections identifiable to the naked eye without optical measurements. However, it can be observed the boot connectors and adapters are placed on the exterior of the housing. Since the connections can be seen on the exterior of the structure and one of ordinary skill in the art would recognize the boot connectors and adapters as interconnecting pieces and furthermore, it would be advantageous for the connection pieces to be identifiable for ease and convenience, it would have been obvious at the time the invention was made to a person having ordinary skill in the art to be able to identify the interconnected connections.

Office Action at pages 3-4.

The Office Action fails to set forth a *prima facie* basis for rejecting method claims 15-20.

Specifically, regarding method claim 15, the grounds of rejection state that the compensation module disclosed in Keys has the “*ability* to replace the second module with a third module” Again, even if this were true, there is no disclosure of actually carrying out the replacement step recited in claim 15. That is, that an apparatus has the ability of being modified does not, alone, teach or suggest the step of carrying out the modification. Moreover, for the reasons discussed above, one skilled in the art would be dissuaded from making such modifications having read the disclosure of Keys, since this patent teaches the use of the same kind of compensation fibers in building an original network and not upgrading a network to add spectral bands.

In view of the foregoing differences, the Examiner is kindly requested to reconsider and withdraw the rejection of claims 15-20.


In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

Response Under 37 C.F.R. § 1.116
U.S. Application No. 10/620,369

Attorney Docket No.: Q76520

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Respectfully submitted,



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CUSTOMER NUMBER

Date: March 28, 2006